



NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**CULTIVATING INNOVATION TO IGNITE
ORGANIZATIONAL TRANSFORMATION**

by

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March 2004

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13. ABSTRACT By the autumn of 2000, NPS wanted to update fundamentally its unique but dated fifty-year-old business of educating 4,000 resident and non-resident military students. In response, I focused on implementing disruptive, compelling change by inexpensively and rapidly kick-starting information flow via website redesign. The first goal would make the public website more productive . The second goal marketed the school's new vision and subsequent re-organization. The third goal, and perhaps the most powerful motive he believed, would help the school begin shifting its bureaucratic culture to one of innovation and learning in a relatively short time frame, with no additional funding, and with relatively minimum resistance. Action research will serve as the template to determine how successfully the three goals of productivity, marketing, and culture were achieved.				
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ORGANIZATIONAL TRANSFORMATION**

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ABSTRACT

Having graduated from the Naval Postgraduate School (NPS) in 1998, I found myself reassigned there two years later only to watch the same frustrating cycle of inefficiency and ineffectiveness. Classes were still being manually scheduled using 3x5 cards, the results transferred into a 1970's mainframe for printout on 15 inch-wide computer paper, and then distributed by hand. Incoming US and international families from any of 50 countries found it difficult to locate timely orientation information. Students, faculty and staff did not have a convenient, consistent method of finding people, places or things on campus. The school's intranet was littered with outdated, irrelevant information. And the crews of 300 warships, positioned worldwide, were hungry for 24/7 distance learning programs. Bureaucracy, fiscal pressure, excruciating oversight, and declining enrollment stifled the school's prospects.

A group of us in the technology department launched the school's first Web Operations Group and I modeled NPS's new website after Monterey's weekly open-air farmer's market. I harvested three conclusions: 1) Like the fresh produce sold every Tuesday afternoon, no one wants information that is beyond a week old; 2) The marketplace provides a secure, convenient, consistent forum in which to transact business as well as ideas; 3) The stalls with better marketing and more relevant produce or services garnered more business. I started attending NPS bi-weekly leadership meetings and asking lots of questions. With no budget, I taught myself how to use web-authoring tools, studied the government Web edicts, and leveraged my server privileges to help stakeholders communicate ideas, collaborate on research projects and partner with NPS. After collecting survey data, I pitched the final concept to school leadership, crafted the new website over Christmas break, and went live six weeks later.

As a result some report processing was reduced from two days to two minutes, information resources were doubled, data clutter was reduced by 96%. The redesigned website now loaded in a third of the time and a simple, ubiquitous search tool helped people locate campus resources instantly.

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TABLE OF CONTENTS

I. INTRODUCTION.....	1
A. BACKGROUND	1
1. The Millennial Course Change	1
2. The World Wide Web Committee and the Three Goals.....	2
B. THESIS GOALS.....	5
C. RESEARCH QUESTIONS	5
II. METHODOLOGY	7
A. CHANGE STRATEGY OPTIONS	7
1. Empirical-Rational.....	7
2. Normative-Reeducative	7
3. Power-Coercive.....	8
B. CHANGE STRATEGY SELECTION CRITERIA.....	9
1. Degree of Change	9
2. Degree of Resistance.....	9
3. Population	9
4. Stakes 10	
5. Time Frame.....	10
6. Expertise	10
7. Dependency.....	10
C. METHODOLOGY: ACTION RESEARCH	11
1. Primary Stage #1: Identify the Question.....	13
a. Secondary Stage: Scouting	13
b. Secondary Stage: Entry.....	13
2. Primary Stage #2: Collect the Data.....	14
a. Secondary Stage: Data Collection.....	14

<i>b. Secondary Stage: Data Feedback</i>	14
3. Primary Stage #3: Analyze the Data.....	15
<i>a. Secondary Stage: Diagnosis</i>	15
<i>b. Secondary Stage: Action Planning</i>	15
4. Primary Stage #4: Implement and Share the Findings.....	16
<i>a. Secondary Stage: Action Implementation</i>	16
<i>b. Secondary Stage: Evaluation</i>	16
III.DATA FINDINGS AND ANALYSIS	17
A. NPS WORLD WIDE WEB COMMITTEE’S (W3C) SURVEY FINDINGS	17
1. The First Goal: Productivity	18
2. The Second Goal: Marketing.....	18
3. The Third Goal: Culture.....	19
B. SUMMARY OF DATA FINDINGS	21
1. What was the W3C Trying to Accomplish with a Website Redesign?	21
<i>a. Scouting</i>	21
<i>b. Entry</i> 21	
2. How Did the W3C Collect the Data?.....	25
<i>a. Data Collection</i>	25
(1) Sampling	26
(2) Instrumentation	27
<i>b. Data Feedback</i>	28
3. How Did the W3C Analyze the Data?	29
<i>a. Diagnosis</i>	29
<i>b. Action Planning</i>	30
4. How Did W3C Implement and Share Its Findings?	31
<i>a. Action Implementation</i>	31
<i>b. Evaluation</i>	31

C. SUMMARY OF ANALYSIS	33
1. Positive Aspects of the Site Redesign.....	33
2. Lessons Learned: The Survey	34
IV. CONCLUSIONS	37
A. SUMMARY	37
1. Productivity.....	38
2. Marketing.....	38
3. Culture.....	38
B. RECOMMENDATIONS	39
1. Communicate Effectively	39
2. Cultivate Leadership and Talent	39
3. Market, Partner, and Incentivize	40
4. Trust People to Take Risks and Innovate	40
C. FOLLOW-ON RESEARCH.....	40
APPENDIX A: NAVAL POSTGRADUATE SCHOOL HISTORY	43
APPENDIX B: SURVEY INVITATION AND RESULTS	47
APPENDIX C: SURVEY COMMENTS.....	49
APPENDIX D: SURVEY SUMMARY RESULTS.....	73
APPENDIX E: THREE DESIGN DOWNLOAD TIMES.....	75
APPENDIX F: BIOGRAPHY	77
LIST OF REFERENCES	79
INITIAL DISTRIBUTION LIST	81

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Never doubt that a small group of thoughtful, committed citizens can change the world.

Indeed, it is the only thing that ever really has.

Margaret Mead

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I. INTRODUCTION

A. BACKGROUND

Having graduated from the Naval Postgraduate School (NPS) years before, I found myself reassigned here only to watch the same frustrating cycle of inefficiency and ineffectiveness. Classes were still being manually scheduled using 3x5 cards, the results transferred into a 1970's mainframe for printout on 15 inch-wide computer paper, and then distributed by hand. Incoming US and international families from any of 50 countries found it difficult to locate timely orientation information. Students, faculty and staff did not have a convenient, consistent method of finding people, places or things on campus. The school's intranet was littered with outdated, irrelevant information. And the crews of 300 warships, positioned worldwide, were hungry for 24/7 distance learning programs. Bureaucracy, fiscal pressure, excruciating oversight, and declining enrollment stifled the school's prospects.

1. The Millennial Course Change

By the autumn of 2000, NPS began to update fundamentally its unique but dated fifty-year-old business of educating 4,000 resident and non-resident military students. In response, school leadership restructured some academic organizations and urged researchers to focus on specific DOD-related topics. When I arrived I passed up a staid protocol job so I could focus on implementing disruptive, compelling change by inexpensively and rapidly kick-starting information flow. I envisioned three goals: the first goal would make the public website more productive; the second goal marketed the school's new vision and subsequent re-organization; the third goal would help the school shift its bureaucratic culture to one of innovation and learning. The transformation needed to occur in a relatively short time frame, with no additional funding, and with relatively minimum resistance. Action research methodology serves as the template for determining how successfully the three goals of productivity, marketing, and culture were achieved.

We launched the school's first Web Operations Group and I modeled NPS's new web-presence after the open-air farmer's market, held weekly in downtown Monterey. I harvested three conclusions: 1) Like the fresh produce sold every Tuesday afternoon, no one wants information that is beyond a week old; 2) The marketplace provides a secure, convenient, consistent forum in which to transact business as well as ideas; 3) The stalls with better marketing and more relevant produce or services garner more business.

I started attending bi-weekly leadership meetings and asking lots of questions. With no budget, I taught myself how to use web authoring tools, studied the government Web edicts, and leveraged my server privileges with the goal of promoting stakeholders to communicate ideas, collaborate on research projects and partner with NPS. After receiving some survey data, I pitched the final concept to school leadership, crafted the new website over Christmas break, and went live six weeks later.

2. The World Wide Web Committee and the Three Goals

In order to kick-start the school's organizational transformation, leadership knew it needed to do more than just rename and reshuffle the hierarchy and its policies. It needed to identify a sense of urgency and acquire a bias toward change.

Coincidentally, the school's Information Technology (IT) department was about to refresh its outdated public website. The Naval Postgraduate School's leadership charged the World Wide Web Committee (NPS W3C) with overseeing the redesign and implementation of its main public website. A dozen faculty and staff from different campus departments comprised the committee. The many differing approaches to the redesign reflected the different levels of technical expertise and design insight. But it did find common ground on one subject: The members agreed that the redesigned website should offer more than just good looks – it needed to reflect the school's new direction and its fresh perspective. As long as the redesign retained the school's academic and

research demeanor, committee members were open to new ideas since the school's leadership had yet to pronounce its updated vision.

Not everyone on the NPS W3C realized that the role they were really assuming had less to do with technology implementation and more to do with organizational change. Instead many members allowed themselves to become lost in technical minutiae. Most of them understood very little about web technology. The committee typically deferred technical, data infrastructure, and DOD policy issues to a sub-group of three IT department staffers within the NPS W3C called the Web Operations Group (WOG). As the school's webmaster and lead website designer at the time, I was on the WOG staff and was already well versed in technical and policy issues. I would later submit one of the three competing website redesigns for consideration by campus stakeholders.

My initial approach went beyond technical fundamentals of coding a new website. I sensed that I should incorporate some change management techniques I had cultivated while working at the Center for Executive Education, but I was wary to forcibly fit this scenario into one change method framework. So I kept at it. I attended the Superintendent's bi-weekly senior leadership meetings – uninvited but was usually able to find a chair in the back of the room. I also routinely asked random people on campus their opinion of how to best improve the school. That is when I learned something new: Their answers overwhelmingly centered on improving information flow. I was amazed that so many people had become so frustrated in finding commodity, public information such as holiday schedules, or searching for unique information to solve a problem such as calling a plumber to fix a leaky sink.

From these formal and informal sources I began to see a greater opportunity to help information flow on three fronts. To address the NPS W3C's immediate needs, the primary goal would remain making the public website more *productive*. The second goal was *marketing* the school's new vision and subsequent re-organization to external stakeholders and the general public. The third goal, and perhaps the most powerful motive I believed, was helping the school to begin shifting its bureaucratic *culture* to a

more innovative learning environment in a relatively short time frame, with no additional funding, and in a manner that avoided resistance. By Thanksgiving of 2000, I convinced the NPS W3C to lay the groundwork of organizational change by committing to a new website redesign that would be unveiled during the New Year (2001) as well as the new millennium, symbolically reflecting the major shift in the school's new vision.

The resulting plan for the NPS W3C had three phases. The first phase assessed the needs of the campus. The second phase showcased three pilot websites from which stakeholders could comment on information flow, site navigation, web page loading times, etc. The third phase turned the stakeholders' needs and wants into a final website design that would be implemented by year's end.

Faculty, staff and students were invited by the NPS W3C to participate in an online survey of information needs as well as to vote for one of three site redesigns that best met their daily academic and business needs as well as one that they felt would best promote the school. Although the primary focus of the survey was productivity, I gained an appreciation for the campus' formal and broader information needs as well as people's insight as how to best market the school. The biggest challenge was combining the survey results and my understanding of users' needs to design the type of website, and to a greater extent the type of organizational culture, that the NPS faculty, staff and students needed for their school to thrive.

B. THESIS GOALS

An action research framework will be used to determine how successful the designer's three goals of productivity, marketing, and culture were met. The technicalities of the website redesign are not part of this study.

C. RESEARCH QUESTIONS

The primary research questions concern the implementation of the NPS website redesign and its effect on three specific areas of the school's transformation. Questions include:

1) **Productivity**: Was there any measurable increase in website productivity? If so, what was measured and by how much did productivity increase?

2) **Marketing**: Was there any measurable increase in the popular perception of the new website? Was anything done prior to website rollout that leveraged stakeholder perceptions? Did this action help in choosing the final decision?

3) **Culture**: What lessons were learned in conducting the site redesign, specifically in regards to organizational development and creating a culture of innovation? What elements comprise a culture of innovation and learning? Is there any evidence, anecdotal or otherwise, that demonstrates a perceptible shift in culture?

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II. METHODOLOGY

Change strategy options and their defining criterion first need to be understood before determining which methodology to use to examine this case's change strategy. In Chin and Benne's 1969 report, "General Strategies for Effecting Changes in Human Systems: The Planning of Change,"¹ the authors highlight three generic strategies and then offer seven selection criterion.

A. CHANGE STRATEGY OPTIONS

1. Empirical-Rational

The *Empirical-Rational* strategy relies on communicating information and incentives. It removes the fog of bureaucracy and markets the benefits resulting from change. Benefits must be substantial enough and clearly demonstrated to outweigh the inherent risks of a change in order to convince people that the new vision is better than the status quo. One benefit of this strategy allows for converts to proselytize the change effort and influence the masses.

2. Normative-Reeducative

Successful change convinces people to commit to new norms and values. The *Normative-Reeducative* strategy leans on people's cultural or societal norms to convince them to change. A charismatic leader needs to persuade a bureaucracy's informal organization or a specific community of practice that this new direction is the best option. Because this strategy requires people to change the way they think about themselves and their place in society, it should not be used in a turnaround situation on short deadlines.

¹ Benne, Kenneth, and Chin, Robert. (1969). General Strategies for Effecting Changes in Human Systems. In Bennis, W. G., Benne, K. D., and Chin, R. (Eds.). The Planning of Change, (2nd Edition). New York, NY: Holt, Rinehart & Winston.

An organization's informal leaders play a critical role and should not just be enlisted and involved in this change strategy but their power to influence others should be leveraged.

3. Power-Coercive

The traditional hierarchical, bureaucratic organization employs the *Power-Coercive* strategy by requiring people to comply with its authority and imposition of sanctions. This strategy first threatens people's stability and limits their opportunities, then offers a few options, to which people will jump at whatever is offered. The short decision timeframe and the seriousness of the threat will convince people to jump from the fabled "burning platform" onto the new change's bandwagon. This can also have grave consequences for the organization, its people, and its leadership. An organizational culture based in autonomy and entrepreneurship will resist authoritarian moves and require key positions to be filled with new loyalists.

In Kotter and Schlesinger's "Choosing Strategies for Change,"² their systematic method of selecting an organizational change effort roughly parallel or mixes Chin and Benne's change strategies via six options instead of just three: education and communication (hybrid of *Empirical-Rational* and *Normative-Reeducative* strategies); participation and involvement (*Normative-Reeducative*); facilitation and support (*Normative-Reeducative*); negotiation and agreement (*Empirical-Rational*); manipulation and co-optation (*Power-Coercive*); explicit and implicit coercion (*Power-Coercive*).

² Kotter, John P. and Schlesinger, Leonard A. (1979). Choosing Strategies for Change. Harvard Business Review. Boston: Harvard Business School Press.

B. CHANGE STRATEGY SELECTION CRITERIA

The two works also investigate factors needed to assess why and where the change strategy should be employed. Kotter cited four primary factors: the amount and kind of resistance anticipated; the power balance between change initiators and resisters; the information required to design and implement the change; the stakes involved.³ Chin instead breaks down his selection criteria further into seven distinct but similar groups:

1. Degree of Change

Massive, radical transformation would require an *environmental-adaptive* strategy that necessitates “burning down the barn and building a new one” approach. A chosen strategy will heavily rely on this factor since it will determine how quickly and deeply the change will effect the organization.

2. Degree of Resistance

A strong degree of resistance necessitates a combination of *power-coercive* and *environmental-adaptive* strategies. Weak resistance or concurrence argues for a combination of *rational-empirical* and *normative-reeducative* strategies. Kotter similarly diagnoses resistance to change through four areas: parochial self-interest; misunderstanding and lack of trust; different assessments; and a low tolerance for change.

3. Population

Massive organizations require a combination of all four strategies since sub-cultures or particular communities of practice inevitably have their own ecosystems that will react and embrace change differently than the next.

³ Kotter, John P. and Schlesinger, Leonard A. (1979). Choosing Strategies for Change. Harvard Business Review. Boston: Harvard Business School Press.

4. Stakes

High stakes also argue for a mix of all four strategies because failure cannot be an option. Moderate stakes argue against a *power-coercive* strategy because there is no grand payoff that will offset the high costs of burning out the organization's talent. The risks involved in low-stake changes are minimal since no one cares and resistance levels are low.

5. Time Frame

Short timeframes necessitate a *power-coercive* strategy in order to keep the organization aligned and to counter any resistance. Longer timeframes can employ a mix of *rational-empirical*, *normative-reeducative*, and *environmental-adaptive* strategies.

6. Expertise

Expertise can be bought at the expense or risk of not executing the necessary change. The expertise is out there; it's a matter of how much the organization is willing to pay to obtain it, or how much it is willing to risk by not obtaining a skilled change leadership professional. Lack of expertise often defaults to a reliance on the power-coercive strategy.

7. Dependency

Dependency requires balancing power, since organizations depend on their people, the ability of leadership to command and demand is limited. On the other hand, employees need stability and salaries so their ability to oppose leadership's change initiatives is limited. This mutual dependency will typically necessitate negotiating a compromise.

C. METHODOLOGY: ACTION RESEARCH

Action research is an integral part of the Organizational Development (OD) process and provides an action-oriented methodology designed to improve an organization's effectiveness as it progresses through a change effort. I chose to use it to analyze this case since it provided a systematic method to obtain empirical facts for planning, executing, and evaluating results.

Action research provides an approach and a process for generating and utilizing information about the system itself that provides a basis for an organizational transformation.⁴ Frohman, Sashkin, and Kavanagh describe action research as a cyclical-sequential model, proceeding through several stages of research and action.⁵

Action research has been described as an informal, qualitative, formative, subjective, interpretive, and reflective model of inquiry in which all individuals involved in the study are knowing and contributing participants (Hopkins, 1993). This case is but a single iteration of this larger model. Other most widely accepted definitions of Action Research include the following:

[Action Research]...aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework.

- Rappoport (cited in Hopkins, 1985)

Action Research is a form of self-reflective enquiry undertaken by participants in social (including educational) situations in order to improve the rationality and justice of (a) their own social or educational practices,

⁴ French, Wendell L., Bell, Cecil H. Jr. (1990). Organization Development (fourth ed.). Engle Woodcliffs, NJ: Prentice Hall.

⁵ Frohman, Mark A.; Sashkin, Marshall, and Kavanagh, Michael. (1990) . Action Research As Applied To Organization Development. In Plovnick, M. S., Fry, R. E., and Burke, W. W. (Eds.). Organization Development Exercises, Cases and Readings. Boston, MA: Little Brown.

(b) their understanding of these practices, and (c) the situations in which the practices are carried out. It is most rationally empowering when undertaken by participants collaboratively ... sometimes in cooperation with outsiders.

- Kemmis (cited in Hopkins, 1985)

[Action Research] ...is the systematic study of attempts to improve educational practice by groups of participants by means of their own practical actions and by means of their own reflection upon the effects of those actions.

- Ebbutt (cited in Hopkins, 1985)

Elliott (in Hopkins, 1993) considers the essentials of action research design as part of the following characteristic cycle:

Initially, an exploratory stance is adopted, where an understanding of a problem is developed and plans are made for some form of interventionary strategy (otherwise known as the reconnaissance & general plan). The intervention is then carried out (the action in action research). During an intervention, pertinent observations are collected in various forms (monitoring the implementation by observation). The intervention strategies are then carried out, and the cyclic process repeats; continuing until a sufficient understanding is achieved (reflection and revision). For this case only one cycle is used.

The process is cyclical in nature and is intended to foster a deeper understanding of the situation and starts with conceptualizing the problem and moving through several interventions and evaluations. The process can be refined to four primary stages:

1. Identifying questions to guide the research.
2. Collecting information to answer the questions.
3. Analyzing the information that has been collected.
4. Implementing and sharing results with others.

1. Primary Stage #1: Identify the Question

There are three major characteristics to a good research question. First, the issue must be important to the organization and the researcher. The issue typically is a problem that needs to be solved or a new program that needs to be evaluated.

The second quality of a good research question is that it directly relates to the issue or problem that the research is exploring. Separate research questions need to be related to one another and together they need to be related to a central issue or problem.

A good research question also needs to be answerable. A way of developing answerable questions is to brainstorm about the larger problem or issue. Asking questions like, "What intrigues me?" or "What do I want to know more about?" can serve as the foundations of solid research questions. Good questions usually begin with "why," "how," or "what" and cannot typically be answered with a "yes" or "no" answer. Questions are posed so that the answers will be based on descriptions or observations.

a. Secondary Stage: Scouting

In this first sub-stage of identifying the question, a baseline is developed on a significant characteristics and problems of a client system. Describing and analyzing the environment and the different organizational variables helps organize the facts, making them more understandable. Obtaining various characteristics of an organization and descriptions of a problem also comprises the first steps of scouting.

b. Secondary Stage: Entry

This second sub-stage establishes a collaborative relationship and clearly defines the expectations of the researcher and the client. The major emphasis is to establish the credibility of the researcher and ensures that a client's senior leadership openly sanctions the OD activity.

2. Primary Stage #2: Collect the Data

Any information that can help answer questions is data. “Good” data are directly related to the questions and can help provide direct answers. Using more than one strategy or source of information for each question helps to ensure that the results will be valid. Utilizing readily available information is not only efficient but it also validates findings since it is discovered and not searched for.

Data can come from observations, interviews, surveys, and documents. Planned or spontaneous focus groups help interview groups of stakeholders. Developing questions about a specific issue beforehand or simply inviting open conversation can serve as an effective method to retrieve qualitative data. (I did both by routinely asking the same questions or monitoring where an open conversation led. People uniformly ended up targeting information flow.)

a. Secondary Stage: Data Collection

This secondary stage involves the client organization more than does the Scouting and Entry stages. This is the point at which the researcher actively interacts with an organization’s members. Two actions need to be accomplished:

1. Selecting a collection method and deciding how the data will be used, and
2. The actual collection of the information.

b. Secondary Stage: Data Feedback

The researcher, during this secondary stage, shares collected data with the client’s leadership. Feedback provides the client with information about its organization and processes that will ultimately determine the strengths and weaknesses of its entire system.

3. Primary Stage #3: Analyze the Data

Researchers refer to this stage as a point of "redundancy" or "data saturation." In practical terms, when the researchers are no longer learning anything new about the questions, it signifies that it is time to stop collecting the data and start analyzing it.

Data analysis involves examination of the data in order to answer the research questions. The data can be prepared in table or database format for simpler comparisons and tabulations. The researcher should become familiar with all the data by reading everything over at least once. Sorting the data by question helps summarize answers and spot trends. Some data might need to be discarded (or at least set aside) if they are found to not directly relate to the questions.

In some cases analysis involves creating categories or themes. This typically happens by sorting the data into groups that share the same general characteristics. Summarizing each characteristic should help answer the research questions.

a. Secondary Stage: Diagnosis

This joint activity between the researcher and the client identifies the data needed to define and explore an organization's problems and its strengths.

b. Secondary Stage: Action Planning

This secondary stage finds the researcher facilitating change activities with the client leadership. It should not serve as an opportunity to dispense with any previous experience or insight since the planning must be unique to this client.

4. Primary Stage #4: Implement and Share the Findings

Implementers should come from within the client organization by someone with a thorough understanding of the original processes and how the new processes will fit in the overall big picture.

All research results do not have to be implemented. They can lead to further investigations about issues under study. Sharing the findings with others, particularly the stakeholders who participated in the research study, can lead to a greater understanding of processes, and, if nothing else, leave the organization with a better sense of communication. Formal dissemination of the findings is important so that an organization's members know senior leadership took the study seriously. Sharing of information might also be informal as well, including spontaneous conversations or discussions.

a. Secondary Stage: Action Implementation

This secondary stage involves actively directed OD efforts to help the client's organization move to its changed state. The specific actions taken and the changes made depend on the situation and the nature of the problems diagnosed.

b. Secondary Stage: Evaluation

Evaluating the action plan includes specifying procedures to be implemented during and following implementation. It also provides feedback that can help guide future OD initiatives.

III. DATA FINDINGS AND ANALYSIS

A. NPS WORLD WIDE WEB COMMITTEE'S (W3C) SURVEY FINDINGS

Survey data supported interviews with various NPS W3C members. Interviews with some of the NPS W3C members indicated the committee's highest priority was getting campus buy-in. Without stakeholders' hearts and heads behind the project, the entire organizational transformation, much less the website redesign, could be jeopardized. Since the data collection phase largely involves stakeholders early on in the change process, it became the critical phase because the customers' initial interaction formed their impression about the process's long-term collaborative efforts to include them. For some stakeholders, being asked for their input was more important than the feedback itself.

WOG personnel typically interpreted and implemented the school's web policy on a daily basis. It was our job to operate and maintain 30 servers and the network that connected them to the campus' 3,000 individual desktop computers. The NPS W3C members' lack of technical depth and institutional perspective, compounded by their competing priorities, forced them to miss bi-weekly meetings and resulted in lost focus. WOG personnel felt compelled to do most of the design and implementation. What transpired was the evolution of the three key components of his strategy: Productivity, Marketing and Culture.

1. The First Goal: Productivity

The NPS W3C focused almost entirely on the objective of tackling technical challenges such as decreasing the time it took for web pages to load on a computer screen. There were other requests as well; the NPS W3C surveyed the students, staff and faculty to find out more (Appendix A). Students wanted easier access to research materials. Faculty wished for an automated scheduling system that worked in different locations (office, classroom) and on different types of computer systems. The NPS staff needed quick and convenient access to each other's information (email address, phone number) so they could operate the school more efficiently. There was also a great disparity in the types and numbers of computer operating systems used on campus. This accentuated the necessity for a common access method. The Navy's push to standardize all corporate computing systems on Microsoft's applications and operating system was met with stiff resistance by some research faculty who routinely rely on new, cutting edge software that operates on different operating systems such as Macintosh and UNIX.

I developed the site following the standards set by the World Wide Web Consortium and followed a simple recipe to incorporate all computing platforms: design the site on a Macintosh, customer-test the site using a Windows computer, stress-test the site using UNIX, and attempt to hack into the site using tools commonly found in the LINUX operating environment.

2. The Second Goal: Marketing

As a change strategist and technology implementer, I wanted to ensure the smooth transfer of vision and objectives into the design and implementation by doing it myself. But I also realized that to achieve an effective marketing presence I needed to shift my focus away from technology and toward the aesthetic. Since the school's leadership had not yet promulgated its vision, I decided to highlight something that made the school unforgettable: its architecture and ties to the military. I infused the school's Spanish heritage into the designs by incorporating a watercolor of the administration building

(formally the Hotel Del Monte from 1880) painted by the school's art gallery director, Mary Lou Pilnick. I negotiated to have her waive any copyright issues in exchange for the added publicity that would result by showcasing Monterey's military artists.

3. The Third Goal: Culture

I realized that by controlling the direction and speed of website development I could quickly and inexpensively guide the organization's transformation toward a personal goal: shifting the campus from an atmosphere of bureaucracy to one of innovation and learning. I knew that wresting control of the project for technical and design purposes was bureaucratically incorrect but organizationally necessary. I anticipated the benefits coming not in any end product or website per se but in the process through which the new culture was created. I drew upon a lifetime mantra: "It's not the destination that matters; it's the journey." I envisioned a corporate campus that could draw upon its journey and harvest its intellectual and political capital and cultivate the best business practices of any learning institution, public or private.

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B. SUMMARY OF DATA FINDINGS

The following summary analyzes the interviews and conversations with members of the NPS W3C as well as delineates supportive data from the campus survey. It follows an action research template described in the methodology chapter to parallel its format as well as assist in determining how successful the website redesign was in improving productivity, external marketing and campus culture.

1. What was the W3C Trying to Accomplish with a Website Redesign?

a. Scouting

The W3C decided the public website needed to be transformed. Fiscal realities of the post-Gulf War 90's forced each activity within the federal government to analyze its business operations. With another Base Realignment and Closure (BRAC) on the horizon, NPS was forced to rethink its core strategy. The general sentiment among the school's senior leadership seemed to be that staying on the current course would not deliver the school, successfully, into the 21st century. Prevailing wisdom dictated that the school must change or it would be replaced by similar and less expensive institutions and processes. But few knew how to proceed or, more specifically, what was needed in order to initiate a successful change effort.

b. Entry

The NPS W3C explored the initial challenge, determined an assessment of user feedback was justified, and wanted to keep any relationship positive and to a minimum. The beginnings of a collaborative relationship were budding. Three NPS W3C members, including myself, were also part of the Superintendent's bi-weekly Strategic Planning Group (SSPG). They experienced, first hand, senior leadership's frustration with how the school needed to transform. Serving as one of the three people

who were on both the NPS W3C and the SSPG, I suggested at a committee meeting that they take a more proactive stance in helping the school.

Initially, there was confusion among NPS W3C members. No was willing to predict what the school would look like after a transformation. The administration seemed apprehensive, almost lost, without a mandate. Members finally agreed to seize the initiative and help define the future of the school by re-mapping the website navigational structure to mirror at least the initial organizational changes school leadership was recommending before updating the website permanently. This would serve as a test bed for different website designs as well as an opportunity to find out what people thought of the new organization even though respondents thought they were just commenting on a website. The committee was trying to find out how to make people's online experience more productive. Most survey responses included issues of site navigation and quicker web page presentation (see The Survey Comments in Appendix C). Response #16 from Appendix C cites, "I dislike web pages that take time to load or are slow. I like to get the information FAST." Response #18 wanted to "Emphasize ease of use." Response #36 charged that, "Navigation should be designed to easily get to the material in TWO CLICKS ONLY."

Respondents' comments also shed light on what was required for the school's external marketing. The WOG's lead designer tuned in to these more qualitative and aesthetic design responses like #39 that highlighted less measurable but just as important issues regarding branding and ease of use, bridging issues of productivity and marketing:

There should be continuity between the NPS main website and the sites generated by the Departments. Current sites have very different look and feel dependent on department. I think a common thread should be implemented with minor variations so that people always understand that they are still within NPS.

Other marketing comments maintained that the school keep or improve its prestige by highlighting its professional, academic and research reputation. Respondent #34 was very forthright and aggressive regarding a marketing outlook:

If we want to sell ourselves as a major research institute, we are going to have to do much more than design a new website. We need to crawl in bed with other major research institutes and big corporations ... maybe links to other major research facilities would actually have a reverse effect if we could get those other organizations to link to us. We need to get noticed.

In submitting one of the three websites to be reviewed by stakeholders in the survey, I wanted to work toward more long-term goals. I knew I could fix the short-term productivity issues identified by respondents – most of the comments were legitimate and necessary. I even understood people's perception of marketing and was indifferent about using one style of graphic or pictures over another. It was the third element, establishing a culture of learning and innovation, that intrigued me the most. So it was the almost offhand comments such as, "Let me start by congratulating you for taking on this task - I think the new web pages will definitely be an improvement" that signaled the beginning of an open, positive discussion about what was to be. This, in turn, focused results on customers, services and effectiveness rather than on employees, products and productivity.

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2. How Did the W3C Collect the Data?

a. Data Collection

The NPS W3C conducted a survey to gauge stakeholder perceptions of campus information flow. It was intended to measure customer impressions of the current website and three alternatives. An online survey was selected because it would be a great opportunity to ask a staff, faculty member, or student their opinion – a rare treat for this campus. The survey was published on the 11th of December. This timeframe would also allow the designers and programmers to work through the Christmas holiday on the chosen design in order to meet a self-imposed deadline of 1 January 2001 to demonstrate a working product to the school's leadership. As important as the redesign itself, the committee felt it was critical to get campus buy-in.

The NPS W3C invited responses using email as well as the web to get quantifiable feedback quickly. The school had just purchased a web-based survey tool that compiled results and automatically provided statistical analysis; the committee used it. The W3C identified and collected three customer groups' opinions (explained in the Data Collection section below). The surveys served as a mechanism to not only provide data that could be analyzed but also to check the committee's feedback and survey processes.

Data collection from customers helped measure the approval of current and proposed website designs (Appendix B and C) and each proposed website's download times (Appendix C). Informal archival research and focus groups were used by the NPS W3C to gauge local customer sentiment of particular issues but are not included with this thesis due to lack of reproducible, written results. The W3C knew that collecting, tracking and publishing metrics would be important. It focused on functionality rather than organizational hierarchy. Many governmental websites cannot move beyond their industrial-age roots and simply mimic their organizational charts. For instance, in order to stress hierarchy and order, Navy quarterdecks (the formal entry point

of ships and shore commands) publicly display pictures, names, ranks and positions of the entire chain of command up to the President of the United States. Their inscriptions or logos further restate the command's mission so as to reaffirm their purpose and identity. The committee specifically wanted to hear from:

- ⊕ Customers: Incoming, current and graduated students; faculty; staff; contractors; American citizens; international governments;

- ⊕ Suppliers: Government and research sponsors, taxpayers, DON/ DOD

- ⊕ Partners: Academic institutions, government agencies, private industry

- ⊕ Focus was from the external perspective

Due to the technical constraints of NPS' email system and the lack of any unified email list of sponsors, the NPS W3C was only able to invite current faculty, staff and students to participate in the survey. I realized we were going to trade genuine external perspective for quick execution, so I did my best to understand and appreciate an external stakeholder's perspective as I designed NPS' website.

The W3C was able, however, to immediately connect with every student, staff member and faculty by leveraging the campus email system's list of addresses. It did not have the time to accurately locate each school sponsor. It was willing to accept the feedback from various campus perspectives on productivity, marketing and culture in addition to the team's insight and experience. The committee accepted that the many customers and suppliers would be represented to some degree, though not fully.

(1) Sampling

In order to get a large sample that accurately reflected the sentiment of customers, the W3C received permission from the NPS Superintendent to

conduct a survey of everyone on campus with an email account regarding the NPS website. Three hundred and thirty one (331) customers responded to the survey:

- ⊕ 118 Faculty (36% of sample, 31% of all faculty)
- ⊕ 81 Staff (24% of sample, 11% of all staff)
- ⊕ 119 Students (36% of sample, 10% of all students)
- ⊕ Seven contractors (2% of sample and statistically insignificant)
- ⊕ Six “others” (2% of sample and statistically insignificant)

With an NPS staff size of 1,142 (382 faculty, 760 staff members) and a student population of 1,236, approximately 14% of the entire campus community responded to this survey. Respondents included government employees and military members as well as a few spouses (who received the emailed invitation at home and decided to participate in the public survey online – they were classified as “other” above).

(2) Instrumentation

NPS sponsored and posted the survey on its intranet which is accessible by any registered computer user who logs in on campus or from the Internet. The majority of questions were quantitative. Most questions were used to gauge customer satisfaction. Every student, faculty, staff member, and contractor with an NPS email account was invited to participate in the WWW Committee’s web survey at 0846 on December 11, 2000 (Appendix B).

Respondents entered survey data through 11 three-point Likert-type questions and one open-ended question/comment section. The only personal data asked for was NPS employment category (staff, faculty, student, contractor or other).

b. Data Feedback

Qualitative and quantitative data warranted a website redesign. The data returned to the W3C for discussion and diagnosis clearly demonstrated the madate for a website redesign. The W3C published both quantitative and qualitative survey results on a campus website. The committee felt it was important to publish the survey results in a public forum such as a website rather than limit feedback to just those who actively participated. Those who chose not to answer the survey could have been voicing their opinion as well, and the committee felt those people deserved to view the same results that could end up affecting their jobs, their families, their life's work, their livelihood.

The W3C received over 20 single-spaced pages of qualitative feedback not just regarding website design, branding and utilization but also customer involvement and participation, mission assessment, organizational structure and survey feedback (Appendix C). Some feedback dealt with cultural issues, some challenged the school's purpose, others the school's future direction. Some respondents provided their own email address, name and other personal information voluntarily in the final "comments" section, although those have been scrubbed from this thesis. Frequencies, means, and medians were used as the primary quantitative analysis methods. The results report percentages of respondents to illustrate customer opinion (Appendix D). The three website alternatives were also put through a battery of technical tests to determine which was the fastest. Design number two was both the fastest design as well as the most popular (Appendix E).

3. How Did the W3C Analyze the Data?

a. Diagnosis

The NPS W3C diagnosed the survey results and comments to better understand the state of campus communications and its inherent challenges. Clearly the results mandated a change of the school's external appearance (Appendix C), whether over the web or via more traditional media. These beginning stages of the impending organizational transformation happened for two reasons, one formal and one informal: First, even though school leadership had not articulated what form NPS should transform into, it nonetheless mandated a change. This caused a formal tipping point. Second, because the lead website designer heuristically aggregated a sizable amount of organizational perspective, he combined it with his technical talent to effect a complete redesign of the school's website in a very efficient and effective manner. Senior leadership anticipated that a website redesign would bring about more than just cosmetic changes to the school's electronic storefront, but hardly anticipated, or appreciated, what it was getting instead.

The NPS W3C was quick to seize upon the opportunity to lead the organizational transformation by setting an example embracing change and leveraging resources. Updating the school's branding mechanism would send a message of being current and relevant yet open for interpretation. The choice of a watercolor in design #2 rather than a picture or graphic symbolized the school's colorful heritage (Appendix C, response #1). By making the site more compelling (via its unified search page), the NPS W3C would also send a message that the institution was becoming more useful and utilitarian, a common request among survey respondents.

b. Action Planning

The NPS W3C developed an action plan, determined who would implement it and how the effects would be evaluated. Once school leadership mandated a website change, NPS W3C developed and carried out a simple, decisive and immediate action plan. Each of the website designers understood the backdrop of the challenge, the school's colorful history and its uncertain future. This was, perhaps, more important than any technical knowledge necessary to complete the design. After the bulk of the website design updates were completed, two WOG members started testing and fleshing out technical issues and had the new design ready for rollout in January.

4. How Did W3C Implement and Share Its Findings?

a. Action Implementation

Website implementation occurred in six weeks. The NPS W3C now needed to implement specific change plans. The design phase took less than six weeks. The decision to roll out the new website took a month. Implementation took one day. The designer and implementers had considerably little bureaucracy to withstand.

There were no meetings, since the designers worked through Christmas Break. There was little hierarchy. Decisions were efficiently diagnosed, decided and implemented.

b. Evaluation

The W3C determined the effects and effectiveness of action implementation and decided to further the redesign efforts. After the website was formally brought online, the Web Operations Group continued to refine technical efficiencies and implement additional user suggestions. Effectiveness of the website redesign on NPS' organizational transformation continues to be evaluated. The W3C continues to act on email and verbal feedback from its customers, if nothing else as a courtesy to let the author know his/her comments were being taken seriously.

Other changes required the NPS W3C to vote or at least provide input before the WOG implemented any changes. The lack of Industrial-Age and governmental oversight (bureaucratic micromanaging) allowed for a quick, decisive, and inexpensive implementation.

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C. SUMMARY OF ANALYSIS

1. Positive Aspects of the Site Redesign

Some positive aspects of the entire survey and redesign process include:

⊕ The NPS W3C capitalized on the school's shrinking resources, customers' escalating demands and the administration's evolving constraints. The committee provided a continual, convenient and accurate means of communications with stakeholders.

⊕ The NPS W3C established a baseline of performance output measures by publicly soliciting important elements of its customer community in its survey (albeit short-fused and not all-inclusive) and by publishing the survey results for public consumption.

⊕ The NPS W3C completed all aspects of public survey, feedback, design and implementation of a new website within six weeks and with little to no expense other than employees' time.

⊕ The NPS W3C has built and deployed its system for efficient transfer as witnessed by the public website migration meetings and the availability of free website templates.

⊕ The NPS W3C has initiated and instituted a program for cross-training technical and administrative personnel to design and maintain their organization's website.

⊕ The NPS W3C identified and tackled a significant problem that limited the school's effectiveness: the ability to ask questions, move forward and set an example.

⊕ The NPS W3C demonstrated leadership within the NPS community as well as the Federal Government by decisively updating and implementing their primary publishing mechanism.

⊕ The NPS W3C prioritized its projects (in this case, the NPS website) that would produce the greatest bang for the least amount of buck within the shortest amount of time. In short, it deployed its resources effectively.

2. Lessons Learned: The Survey

School leadership had many challenges to overcome, but its decisions were outside the purview of the NPS W3C. The one item NPS W3C did control, and could have improved, was its survey. Some actions it could have handled differently include:

⊕ The committee's initial and sole metric was the website's completion date. This precluded further measurement or future comparison of implementation success.

⊕ The survey was designed, developed and published by one committee person who had little experience in designing surveys. This person did not establish contact with stakeholders, management, or faculty prior to the survey commencement who could have checked the survey's wording, validity and usefulness.

⊕ Constrained resources, particularly time, prevented a more thorough survey of NPS' customers, suppliers and partners. This greatly limited the opinions and participation to a select segment of the real external customers, leaving out the very partners, sponsors and superiors to whom the website is oriented. Perhaps the site's main users are currently on campus, but if the school is looking to enlarge its prospects and engage more resources, it must leverage its most potent weapon in aligning public sentiment with that of the school's goals.

⊕ The survey was distributed via email to NPS personnel who had email accounts. There is no accurate way of knowing if the true NPS population was actually invited to participate in the survey.

⊕ Randomly selected students (3) and professors (2) who did not participate in the survey reported that their opinions would not have made a difference.

⊕ The invitation to participate in the survey alluded to future requests for input, which attempted to include the person in the transformation process. The survey process and the prospect of future collaboration sent a stronger message of organizational transformation than any quantitative analysis of specific feedback or qualified statement regarding the school's hierarchy could have ever hoped for. It also set the stage for greater stakeholder buy-in during the next step in the school's organizational transformation. The NPS W3C, however, did not follow through on this declaration in a timely, consistent manner and has since lost the initiative gained by it.

⊕ In retrospect, internal stakeholder buy-in could have been handled better at more senior levels. Some campus professors felt that the Superintendent did not want their opinions or advice. Yet they felt that it was the faculty and staff of any academic institution who ushers in and maintains any long-term organizational transformation. They needed to be, but were not, brought on board with the change. The students, predominantly US military personnel here for only two to three years, would only witness a fraction of any long-term transformation due to their short stay and customer status.

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IV. CONCLUSIONS

A. SUMMARY

By the autumn of 2000, NPS began to update fundamentally its unique but dated fifty-year-old business of educating 4,000 resident and non-resident military students. In response, school leadership restructured some academic organizations and urged researchers to focus on specific DOD-related topics. When I arrived I passed up a staid protocol job so I could focus on implementing disruptive, compelling change by inexpensively and rapidly kick-starting information flow. I envisioned three goals: the first goal would make the public website more productive; the second goal marketed the school's new vision and subsequent re-organization; the third goal would help the school shift its bureaucratic culture to one of innovation and learning. The transformation needed to occur in a relatively short time-frame, with no additional funding, and with relatively minimum resistance.

Early the following year the website redesign went live. Some report processing was reduced from two days to two minutes. Information resources were doubled, data clutter was reduced by 96% (measured by the the percent of wasteful graphics and outdated information that was replaced by useful, current information or even aesthetical white space), and information flow consequently increased by 37% (measured by the increased traffic flow after going live with the new design). The redesigned website now loaded in a third of the time and a simple, ubiquitous search tool helped people locate campus resources instantly.

The NPS W3C effectively gauged, and engaged, campus stakeholders in an effort to help school leadership begin to transform NPS. Leveraging the power of online publishing and gaining stakeholder buy-in set an excellent example that overshadowed such downsides as insufficient feedback from an all-inclusive list of stakeholders. The web redesign did help in the following ways:

1. Productivity

NPS website redesign was deemed effective because there was a measurable increase in website productivity. Specifically the site was quantitatively faster (Appendix E). The new website offers more functionality such as a new search mechanism and a greatly improved phonebook. This leads to greater internal and external communication and collaboration, thereby increasing the school's productivity.

2. Marketing

The new website design was qualitatively more appealing to customers (Appendix D, "Survey Results – Design #2"). The survey prior to website implementation leveraged stakeholder buy-in for two main reasons: simply asking for their input and using their feedback. For instance, graphic files were further compressed to shorten load times; navigation of organizational web pages was updated; and a unified appearance was instituted across the top layers of the public website.

3. Culture

Lessons learned in this site redesign demonstrated that publicly soliciting feedback and then publishing the results established, if nothing else, a new precedent of inquiry and change at NPS. The fact that school leadership, represented via the NPS W3C, wanted to solicit stakeholder opinions was enough evidence to lead most campus faculty and staff to suspect a sea change. This led to the greater discovery of a culture of Learning and Innovation. It is less a destination or product, but more a journey or a service. It is the environment which allows new ideas, however crazy or short-fused, to have a chance at thriving by being properly supported and protected for at least a set period of time. Anecdotal evidence in the comments of Appendix D indicate that some campus respondents were pleased, some even surprised, that their input was being sought.

B. RECOMMENDATIONS

Lessons learned in conducting the site redesign, specifically in regards to organizational development and creating a culture of innovation, included:

1. Communicate Effectively

A small, tightly knit group was empowered to conduct the design and implementation of the school's website. This minimized disagreements over perception, utility, and branding. Issues could readily be resolved and turned into policy. There was also one voice, one consensus. The "organization" was small, experienced, and passionate. It understood the different technical and strategic implications all at the same time. I believe communicating effectively is the crux of creating a culture of innovation.

This provided many benefits such as immediate feedback, mid-course corrections, and prevented undue interference from the bureaucracy it simultaneously represented and for whom it toiled. It did, however, cause the NPS W3C members to become overly involved with the project's specific technical elements, and required them to frequently step back and to look at the bigger picture.

2. Cultivate Leadership and Talent

NPS was insufficiently prepared and/or lacked a clear vision for implementing change, particularly leveraging the concurrent change it was undergoing with its own public website. It initially did little to incentivize or capitalize upon its greatest resource: people. It was the NPS W3C who conceived of asking campus stakeholders to help design the new website and improve NPS's primary external gateway. Whether the improvements have measurably improved the institution's self-perception, credibility and preeminence is a matter for follow-on work.

3. Market, Partner, and Incentivize

Incentivizing campus stakeholders (faculty, staff and students) to see and use a common tool (the school's website) to investigate and comment on website changes served a greater goal than just soliciting people's feedback. It also served to gain their collective trust that positive steps were being taken to transform and align the bureaucratic organization that they had tolerated over the years.

4. Trust People to Take Risks and Innovate

I leveraged the trust of the NPS W3C in my technical abilities and organizational insight. Because I was able to convince the committee to move forward with an aggressive schedule, I was also building in a certain tolerance for risk. The survey was risky in its creation and deployment, particularly toward the end of the school year. The three website designs were understood not to be perfect, but nonetheless served as a quick sketch of potential ideas upon which respondents could judge their preference and vet their needs. In essence, I created an atmosphere whereby risk and its resulting innovation were not just tolerated; it was driven by necessity and schedule. I altered people's expectations and mindsets to capitalize on the benefits of quick turnaround, low cost and minimum political friction at the risk of an imperfect outcome. Hence the website was conceived, created and implemented in six weeks, with no expenditure of funds and without the loss of IT personnel or political capital.

C. FOLLOW-ON RESEARCH

There are two immediate opportunities for follow-on research. The first involves applying the Action Research theory used in this thesis and broadly applying it to future organizational initiatives at this or any other command. The same general steps could help guide a transformation effort, assist leadership in avoiding some OD pitfalls, or provide a roadmap for less experienced leadership that is considering change.

The second opportunity involves the survey used in this thesis. Some opinions expressed by respondents could be broadly applicable to any organization that uses the World Wide Web: People will always want information faster and more accessible. But a real lesson learned here is how the command approached issues of customer feedback. Simply asking questions and providing stakeholders a feedback mechanism through which they can express their ideas and needs is nothing short of liberating. Actually implementing those ideas and providing a forum for continual outreach and feedback sets the climate for a positive, healthy culture.

A third opportunity exists in another iteration of this survey cycle. Soon after the Spring 2004 rollout of NPS' newest public website redesign, another survey could go out, this time perhaps to both internal and external stakeholders. The original survey's results could serve as a baseline to compare the resources expended and the perceived value received with the second website implementation.

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APPENDIX A: NAVAL POSTGRADUATE SCHOOL HISTORY⁶

The following information is quoted from the NPS Public Affairs website.

The idea for a graduate education program for naval officers first emerged in the late 19th century but, initially, the concept found few advocates. With Marconi's invention of the "wireless" in 1901, the Wright brothers' flight in 1903, and the global trek of the steam-powered White Fleet from 1907 to 1909, belief that advanced education for U.S naval officers could be intrinsically valuable to the Navy gained support.

On June 9, 1909, less than four months after the completion of the record-setting world cruise of the Great White Fleet, Secretary of the Navy George von L. Meyer signed General Order No. 27, Establishing a school of marine engineering at Annapolis.

This small program, consisting of 10 officer students and two Navy instructors, would later become today's Naval Postgraduate School. The Navy Secretary's order placed the fledgling school under the direction of the Naval Academy superintendent, who was charged with "securing ample use of the educational plant of the Naval Academy to students and instructors of the school without interfering with the instruction of midshipmen." This translated into two attic rooms being set aside for classroom and laboratory space for the school.

Within three years, Meyer agreed to a proposal to change the school. On October 31, 1912, he signed Navy General Order No. 233, which renamed the school the Postgraduate Department of the Naval Academy. The order established courses of study in ordnance and gunnery, electrical engineering radiotelegraphy, naval construction, and civil engineering as well as continuing the original program in marine engineering. With the additional curricula, enrollment increased to 25. Officers who attended the school

⁶ Naval Postgraduate School website: <http://www.nps.navy.mil/PAO/History/history.htm>, last checked 1 Oct 2003.

finished their academic programs at civilian institutions such as Yale, Harvard, Massachusetts Institute of Technology, and Johns Hopkins and Columbia universities.

During World War II, Fleet Admiral Ernest King, chief of naval operations and commander-in-chief of both the Atlantic and Pacific fleets, established a commission to review the role of graduate education in the Navy. The recommendations from this group, the Pye Commission, were regarded highly within the Navy and Congress. In 1945, Congress passed legislation to make the school a fully-accredited, degree-granting graduate institution. Two years later, Congress adopted legislation authorizing the purchase of an independent campus for the school.

A post-war review team, which had examined 25 sites nationwide, had recommended the old Hotel Del Monte as a new home for the Postgraduate School. The Navy had come to Monterey during World War II, leasing the Hotel Del Monte in early 1943 for a preflight training school, and subsequently using the facility for other training programs. Negotiations with the Del Monte Properties Company led to the purchase of the hotel and 627 acres of surrounding land for \$2.13 million.

In December 1951, in a move virtually unparalleled in the history of academe, the Postgraduate School moved lock, stock, and wind tunnel across the nation, establishing its current campus in Monterey. The coast-to-coast move involved 500 students, about 100 faculty and staff and thousands of pounds of books and research equipment.

Rear Adm. Ernest Edward Herrmann supervised the move that pumped new vitality into the Navy's efforts to advance naval science and technology.

Since that time, NPS has grown to become the United States military's primary advanced education institution that offers classes leading to advanced degrees in over 40 Master's and Doctoral programs. Located in Monterey, California since 1947, NPS is

situated on 627 acres of land 120 miles south of San Francisco and houses state-of-the-art laboratories, academic buildings, an excellent library, student and staff housing and recreational facilities. Approximately 1,500 students receive orders here for fully funded graduate education from the five U.S. military services, 50 international countries, and the civilian sector of the U.S. government. Selection is based on outstanding professional performance as an officer, promotion potential and a strong academic background. The faculty is predominantly civilian, 99% of whom have PhD's.

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APPENDIX B: SURVEY INVITATION AND RESULTS

This is the text of the initial email sent to every student, staff and faculty member with an email account at NPS inviting them to take the online survey.

Subject: NPS Website Redesign

NPS Faculty, Staff and Students,

The NPS website is being re-designed and all NPS personnel have an opportunity to shape the development of the site. The website that evolves from this process will not only have a new look that will reflect the professionalism and excellence at NPS, but will be more usable and navigable, with a new, robust search engine. To review and comment on the proposed organization and two different designs please participate in a survey at <http://www.oc.nps.navy.mil/www/survey.html>. It should take not more than 5 minutes to complete this short survey.

The NPS WWW Committee, which has organized this redesign and the survey, requests that all responses be submitted by COB Friday, Dec 15. More information on this project and on the NPS WWW Committee can be found at

<http://www.oc.nps.navy.mil/www/>. Results of the survey will be posted to this site after December 15. We will continue to request your input as we proceed with the re-design.

Thank you for your participation!

Arlene Guest
Chair, WWW Committee

The following are the results of the online survey from the W3C's website:

Thank you all who participated in the survey! There were 331 respondents, including those who responded after Friday. Every survey has been counted (except for a couple of you who inadvertently submitted your survey with identical comments twice) and the comments have been collected in a separate online file @ <http://www.oc.nps.navy.mil/www/comments.html>. (24 printed pages).

1. Breakdown of respondents:

Faculty	Staff	Students	Contractors	Other
118	81	119	7	6

2. In terms of the layout of the pages, (i.e. blue sidebar on Design 1, no sidebar on Design 2, tabs on Design 3), which do you prefer?

Design #1	Design #2	Design #3	Not important / No opinion
90	162	57	19

3. Consider each design. Does the design reflect the image of NPS that we want to communicate?

Design #1			Design #2			Design #3		
Yes	No	No Opinion	Yes	No	No Opinion	Yes	No	No Opinion
136	119	57	191	71	50	15	10	3

4. Overall, which design do you prefer?

Design #1	Design #2	Design #3	All	None
72	162	51	27	19

Question	# of Respondents		
	Agree	Neutral	Disagree
5. The linked categories on Level 1 (Level 1 is the top level website, i.e. www.nps.navy.mil) are appropriate.	217	70	26
6. The linked categories on Level 2 are appropriate.	197	90	22
7. The linked categories on Level 3 are appropriate.	175	106	23
8. The linked categories on Level 4 are appropriate.	170	113	20
9. The website addresses needs of prospective students.	192	87	36
10. The website will address the needs of current students.	196	91	19
11. The website will address the needs of faculty and staff.	147	136	19
12. The website will address the needs of research sponsors.	109	157	43

APPENDIX C: SURVEY COMMENTS

Legend: Insight: S=Status, P = Productivity, M=Marketing, C=Culture

#	S	P	M	C	Comments
1.	F		X	X	The picture of Hermann Hall in Design 2 should replace the picture in Design 3. It's a great picture that captures the Spanish-1930's flavor.
2.	F	X		X	RADM Ellison has proclaimed that he wants NPS to enter into "partnerships" with other institutions as a primary goal for the future. NPS is in partnership with the Naval War College, which under the old website design, is shown on the homepage itself, along with JPME, and is one click away. Under the new design proposals, this is no longer the case - in fact, in Design #1, the only one with links connected, it takes 3-4 clicks to get to the NWC/CCE link and that only succeeds if you can figure out which path to take and understand that JPME = Naval War College. Unsat! And yes, I would be happy to discuss this with the NPS web development committee.
3.	F	X	X	X	Let me start by congratulating you for taking on this task - I think the new web pages will definitely be an improvement. I particularly like the sidebar structure, since that means that the top two (or more) levels can be navigated transparently and people won't get lost. At the same time, I think there are many ways you could make them easier to navigate. Have you thought about frames, so the navigation info stays at the side (or top) of the screen even if the page has more text? This also makes it easier to update the "look and feel" of the pages more easily. It's a bit hard to evaluate the site map since it doesn't correspond exactly to any of the three designs. I think you should consider both adding some links and also taking some away. One benefit of the web is that not everything need be in a direct tree structure, but some sites can be linked via alternate paths. I'd suggest adding a few more categories at the top level and delineating them somehow so that people could navigate by WHO they were if they didn't know exactly where to go(see, for example, www.umsl.edu, www.umich.edu, or www.arizona.edu). I'd have separate buttons for prospective students (interested in housing, admission requirements, info about the Monterey area) and current students (links to current events, thesis info and diploma requests,...). Some links would obviously be of interest to both (e.g., academic programs) and show up on both pages. By the way, I'd have the first link under "Prospective Students" be something like "Why come to NPS?" and give them some compelling reasons.

#	S	P	M	C	Comments
					I'd add a button for "Sponsors" or perhaps even "DoD and other sponsors" at the top level to reinforce our mission of DoD relevance. We should make it easy for sponsors to find out how to support projects and/or identify someone to talk with about potential projects, as well as show them what we've done lately. I felt some of the links were unnecessary or in the wrong place. For example, I think separate links for "Curricula" and "Degree Programs" is confusing. I'd move the "Course Schedule" up a level rather than having it under "Admissions". Some links under "Admissions" seem to relate to faculty support, rather than students (e.g., audio visual dept, NPS Process Improvement Team). If this is the only place from which they're linked, it'll be extra clutter for the students and a link not followed by the faculty. Could there be a link from the "Faculty & Staff" web page category to the "NPS intranet"? This could be password protected (so it would be accessible even when faculty are on the road). I'd add a link from the "Library" to the "Distributed Learning Resource Center" since that's where it's physically located. You don't need to have everything linked from the level 1 categories if they're available in an NPS phonebook directory on the web. This means that some of those items that are easily found in an alphabetical list but hard to classify might be dropped from the top levels entirely. You might want to add some more details about minimal style requirements to your web guidelines.
4.	S				Design #1 - The photos are out of focus, too small and too close together. Design #2 - has the best artwork but there is too much white space - make the painting larger. Design #3 - the tabs take over - needs more balance between artwork and space. I can't find the SOLIC Academic Group.
5.	F	X			Design #2 is simpler and easier to navigate (once the link-levels are put in place and right-click is substituted with left-clicking). You may want to up DLRC's category by a level (the site map shows it under Admissions in level 3, is this the right place?). Design #3 looks just like something out of a Front Page Theme or a Dreamweaver Template! Design #1 took a lot longer o download when I tried over a modem.
6.	S	X			Design 1 and 2 pop up immediately on my browser. Design 3 takes 10 seconds to load. This is not user friendly. Of the 5 pictures on design 1, one is unrecognizable, and two are blurry and indistinct (on my 20" monitor with the page at full size). I assume we do not want to project the image of blurry and indistinct to the world. I like the layout of design 1 if we can fix the picture problem.

#	S	P	M	C	Comments
7.	F	X			With the map sitting right in front of me I still see no path/option for finding out about computing on campus - labs, facilities, help desk, hours of operation, etc. To me this seems a glaring omission.
8.	O	X			From the perspective of DRMI - I found it difficult to find us! There was no reference on Level 1 to short courses (non-degree courses). Unless someone knew that we were under SIGS - they would never find us. There should be reference/link on each level. You have a special link for Executive Education, but not for DRMI. There are separate issues regarding registration, housing, etc. for short courses as opposed to degree granting programs. And there are separate issues regarding international considerations.
9.	F		X	X	The home page does not emphasize the military aspect of NPS enough. We have problems convincing the Navy that we are important to the Navy's mission. We need some pictures of students working on research projects related to defense, with one-line descriptions underneath. Four of those, plus a nice picture of Herrmann Hall would be fine. Leave the nice sites of Monterey for a prospective-student page. Or, two of those pictures, and something academic, and something of the area, etc. BUT, make it have something to do with defense. A ship and an F-18 would be good!
10.	F		X		I would like to see mission statement, strategic plan, etc. included in the website. Not sure where that is in the content pages.
11.	F	X			What about the Center for Recruiting Innovation (CRI) in the Systems Management department?
12.	S	X			Reference the site map. When prospective students go to the website, the first thing they are looking for is curricula information, and course information (NPS catalogue), housing information, registrar information. This in my opinion should be level 1 or level 2, if level 1 is information on the school, superintendent. The next level should be Research, distance learning. Information on Monterey should be the last level.
13.	D			X	I would like to participate through the NPS WWW Committee.
14.	D		X		I like design 1, but it's too big to fit on a single screen when it opens; I prefer home pages that fit on one screen and provide a concise overview of what's inside the site. Once I start following links, then page size is not as important.

#	S	P	M	C	Comments
15.	S		X	X	Design #1 holds the most potential for NPS, if the photos were better and more about the interesting things going on specifically at NPS. In our facility planning discussions we have found positive responses to the idea that "NPS is about the future". That concept distinguishes NPS from the history and tradition of the Naval Academy (about the past?) and the War College (about how to best address events today). Since NPS is about the future...this design should be more EXCITING, more graphic, and highly interactive. I suggest including motion in some of the photos, and using a variety of icons rather than the text list along the left hand side. Admiral Ellison has a number of very dramatic initiatives underway, and these web design alternatives should try to capture the spirit of the exciting times we are about to enter . Finding things in this format is hard, even if you know the NPS organization. This website should be much more fun to explore than represented in the choices proposed above.
16.	S	X			Where is the "search" in the website going to be? I did not see it in the organization matrix (Draft NPS WWW Site Map). Minimize use of plug-ins, java, etc. I dislike web pages that take time to load or are slow. I like to get the information FAST . Make some nice graphics and have a good layout but keep out all of the bells and whistles. Counters are sort of lame because they do not really reflect correctly the hits of a site. They are a good example of a useless bell/whistle.
17.	D	X			The site looks good to me. For the first two designs the pictures were very blurry and you could not really make them out.
18.	D	X			Emphasize ease of use . Make it easy to find info. Include a search engine for the site - accessible from any page. Note that at least two clicks seem to be necessary in order to accomplish anything productive.
19.	O	X			I think the structure of the website is alright but I would have liked to go into some of the functions in order to see how well it was established and if it is helpful for the faculty/staff or students or civilian work force.
20.	F	X	X	X	Web Page 1 mission statement only addresses the combat aspect of the NPS, neglecting its other mission goals. It is a run-on sentence. The pictures are small and not easy to see. Web page 2 looks like a postcard, doesn't have the NPS address & phone numbers, nor does it have a mission statement, which I feel is important . Web 3 is in general excellent, professionally presented and attractive. Its mission statement could be a larger or different font or bolder, to

#	S	P	M	C	Comments
					make it stand out more, as well as justified to square it up better. The picture could include the flag, if possible. If this is not possible, it is nonetheless a great photo (I like the shadows). Instead of a plain white background, perhaps a tasteful watermark background collage (white on white textured only) would look better and add textural interest. It could be of military significance, such as: clipper ships, carriers, subs, planes, international space station, etc. Including something from each service! I would emphasize that NPS is open to all services and civilians.
21.	D	X			I am currently designing a new web page for the Army to go under the service representatives link. This page will contain a lot of useful information for incoming students as well as current students. The problem is that the service representative pages are buried as a 3rd link under the Dean, where very few, if any people will find it. I recommend that the service representative links be located on the first page.
22.	D			X	No comment, so far so good.
23.	F	X			The layout in long columns is unsatisfactory. It should be a tree structure so that viewer can see all of the major headings at the first level without having to page down to see what the major headings are.
24.	F	X			Missing information on things such as MWR. Who in their right mind would think to look for "Audio Visual Department" under "Admissions"? The phonebook is probably one of the most frequently used pages at NPS, it should be accessible directly from the homepage. Have you done any sort of frequency analysis on pages in the existing website to see which ones are used often, and made an effort to make these the most easily accessible pages?
25.	S	X			Where is the information on staff support such as Directorate of Military and Civilian Personnel? This is a part of the students life at NPS as well. There are a lot of departments that are under this directorate that support the needs of the students, staff, faculty and family life. Also what about financial area....Comptroller, etc. The sites listed do not fully address what is available at NPS.
26.	D		X	X	Design #2 has the look of a prestigious school. The watercolor print is more impressive than any photograph could ever be. Design #3 definitely looks "military", but it looks just like many military gaming websites. It may be attractive to teenagers, but that is not who our primary audience is. We don't want to look like Jane's Online, NovaLogic, or Microprose, do we? Design #1 just looks

#	S	P	M	C	Comments
					like we paid someone \$10 an hour to come up with something just to have a website. The home page does nothing to convey the mission of NPS . While I enjoy the local scenery and abundant wildlife as much as anyone else here, pictures of crashing waves and coastal scenes should not be the selling points for NPS. Pastel colors are too soft for a school that prides itself in its academic and technical prowess. Bold colors are the only way to go. I performed the first major overhaul on the Navy Supply Corps School's website, so I, too, have been faced with the same decisions that !
27.	D		X	X	Design #2, in my opinion, reflected a more professional --less glitter--webpage...it seemed less busy and straight forward. Yet, the rotating photographs of Design #3 were a good touch...yet, wonder just how many potential customers/students/etc. will spend enough time on that page to enjoy the webmaster's skill? Even so, Design #2 might be improved if the photographs of Design #3 replaced the fuzzy Herman Hall painting (?) of Design #2. In the review of the website content thought a couple of things might be missing or should be provided on the website. First, although NPS (is the "school" ever going to lose the name "school"?...maybe Institute, University, etc.) is an academic institution, it still is a military installation (I think). Therefore, it would be nice to have access to contact information for site security personnel (ref: special procedures, clearances, etc.), base security procedures, etc. Lastly, since the school hosts many students from the other services and a large number of Allied services, would it be possible to (1) provide contact information for any such POCs at NPS for these particular groups (not just an international section), as well as links to there respective services (be they US or Allied)...just a thought. Good choices on the websites. Nice to see work is being done to keep the site current, responsive to those who use it, and update. Thanks...
28.	D	X			Design three does not print well when a tab is selected, try it. I think Design 3 will take a long time to load over a modem. Need to have a section entitled "incoming students" The current site and design sitemap make and incoming student hunt through the website looking for information. Why not have it in one spot? Redundancy is O.K. Just add a new tab with easy links.
29.	S	X			Where are activities that support the non-academic functions of NPS, like Public Works, Supply and the Computer Center? Where is the Trouble Desk and the Help Desk? Are these base organizations to be relegated to the intranet pages only, and not part of our public face? Since much of the meat of the site is 4 levels down, will there be a search function to go directly to what you are looking for, so you can bookmark the page? Not being a

#	S	P	M	C	Comments
					prospective student nor a research sponsor, this site needs to meet my needs for ordinary information about the campus, reaching offices and people and finding out what acronyms mean, who is in charge of what, and things like that.
30.	F	X			We need to host a summary and links for all advanced education programs and opportunities- currently some of that information is available from Director of Civilian Institutions and Deputy Director of Programs.
31.	F	X	X		In my opinion, Design 3 is best because it shows a cyclic display of graphics from around the school. However, all three designs seem to have some picture of Herrmann Hall, and I question that. There are no classes there, and students conduct little business there. Perhaps you should include more pictures of the academic campus buildings and less of the administrative offices. It would be great to see pictures of the academic quad, students in classes, and even some of the research facilities. Those are the kinds of things I look for when I visit webpages for other academic institutions. NPS can do the same, and I believe it would have a strong impact in terms of recruiting. Prospective students throughout the US and abroad want to know what kind of academic environment an institution provides. They look for student / teacher ratios and research opportunities and you can provide that information with photos from around the campus. Design 3 is the best choice by far. It is pleasingly arranged, and the graphics help to grab your attention. Design 1 and Design 2 are mundane at best, and do not serve to promote NPS very well. Thanks for asking for our opinions; I hope mine helps.
32.	F	X			Research links should go back to Departments in Level 3/4 of the site map. Perhaps this is envisioned but it's not clear in the site map. Pictures in design need to be larger to see them and give a flavor of the NPS environment.
33.	F	X	X		On the subject of the 3 initial pages. I like design 2. It is the cleanest and simplest. Design 1 doesn't fit on my screen and I have to scroll. Design 3 looks like a file cabinet and not a very appealing look. Design 2 looks more like other good educational sites that I've been two. As to the organization, if you go to other educational institutions, you see that the research section is much more intermingled with the academic section. I think this should be thought about and applied to the organization of the academic sections. The site design, should be simple to navigate, easy to read, fit on the screen horizontally, and have plenty of internal connections between levels (i.e. research and academic sections

#	S	P	M	C	Comments
					could be linked together where appropriate).
34.	D	X	X		I really don't like that I cannot access the majority of the current NPS pages from home (maybe I just don't know how) It certainly could be more straight forward. Each functional area also needs to beef-up it's pages. Last night I tried to look up an office phone number. I found the number that I was looking for, but only the last 4 numbers, new to the area, it took me a few seconds to remember what the first 3 numbers were. If I was not from here, I'd have no idea (much less the area code!). If we want to sell ourselves as a major research institute, we are going to have to do much more than design a new website. We need to crawl in bed with other major research institutes and big corporations...maybe links to other major research facilities would actually have a reverse effect if we could get those other organizations to link to us. We need to get noticed.
35.	S	X	X		I like design #3 a lot. It's fantastic! Just would like to let you know that I believe to have a better picture of NPS (Hermann Hall). I would like to invite you and who ever is interested to view it in the Comptroller's office, room 144. I have an enlarged picture of the building hanging in my office, and I have the same picture scanned and could make it available if desired..
36.	F	X			It is hard to tell any of that above on Links unless we see a fully fleshed out demo of the navigation. Navigation should be designed to easily get to the material in TWO CLICKS ONLY . One click to get to the right category and the next click gets you there. So please do not try to match the web presence to the NPS hierarchy as you then will require multiple clicks to get anywhere.
37.	D	X			If it is not considered for the updated website, please include Dental information. Plenty of medical info, but I could not find dental info on current website.
38.	D	X			Website needs a search icon in all levels (including level one) to provide rapid access to information .
39.	D	X	X		There should be continuity between the NPS main website and the sites generated by the Departments. The current sites have very different look and feel dependent on department. I think a common thread should be implemented with minor variations so that people always understand that they are still within NPS.
40.	F	X			Need IT in Level 1 and campus network and computer resources at the lower levels. Need to add Distance Learning, VTC, and DLRC

#	S	P	M	C	Comments
					in the various levels. I answered "neutral" because without seeing all the content -- much of it is missing -- it is difficult to say whether needs will be met.
41.	D	X			The tab format allows a user to scan most of the levels quickly vice having to click from page to page. The style of the tabs in design 3 is not very attractive though.
42.	F	X	X		At level one there should be an entry for faculty, just as there is for students and other appropriate categories. Without them, there is no NPS. Searching for faculty on the websites of other institutions, I sometimes encounter the same problem, i.e., no single easy to reach list of faculty. It is a no-brainer in my book.
43.	D	x			I would like to emphasize that the other faculties should use the same format (as in Design 3) and make an effective presentation for their students. Because it is sometimes too hard to find information even you start from an elegant homepage of NPS. (You're lost if you surf deeper).
44.	S	X	X		The website should have a prestigious layout and the photos of NPS should be clear enough to be able to identify what the photos are (some of the photos are small). The fonts should be eye catching as well as the background colors. The appearance is either too soft (pictures do not stand out) and choice of font is poor. This is the Postgraduate School - old but still standing firm! NPS is a landmark , it has to be eye-catching!
45.	D	X			I don't know on which browsers you tested the design 1. I've tested it on the Netscape 4.62 for linux (Redhat 6.2) and it crashed the browser. I do know that this is a browser failure, but I thought that you might want to know. Also, the design 1 was not compatible with the KDE's browser (it does not java javascript enabled). Maybe sticking with non-java web pages could be an idea.
46.	D	X	X		Might include govt agencies, commands, foreign countries, companies, that support & participate in NPS programs. This would give a high level overview of the breadth & depth of NPS activities and give incentive and recognition to organizations that support NPS .
47.	D	X			The site map is functionally broken down okay, but the way it is laid out is not intuitive that the column to the right is a subcategory of the last entry to the left. A more graphical approach rather than a table would be more appropriate (with just level 1 or level 1 and 2 on the main site page).

#	S	P	M	C	Comments
48.	F	X			Question #1-4: I prefer the single picture of Herman Hall, but I prefer the sidebar as in design #1. Question #5: Executive Education is not appropriate at Level 1 (it's already at level 3). Question #7: Center for Civil Military Relations is listed twice... Question #8: Shouldn't Physics be listed under "Science"? It looks pretty strange (to neutral outsider observing this site) under "Operational and Policy Science"... Question #12: Sponsors often need to reach a specific Faculty whose name they know, but whose Department (or Crazy NPS "Group") they don't know. I recommend a straight forward alphabetical list of Faculty names with phone and email address...
49.	D	X			1. I would like to see the some aspects of the intranet page on the internet page (ie. urinalysis time, things that students are required to be at, but if they are at home can not access). This should be a level 4 item but needs to be advertised to students. 2. All the web pages display fine if you are on a modern machine with a screen resolution of 1024 or better, but in the library (since your tables do not change size with the screen) the webpage does not look good as good as it could. I like the overall view of the page, but since I can't see it all at one time, that is distracting.
50.	S	X	X		I did not answer all the questions, because I wanted to add comments with some of the responses. I do think Design 2 is a step in the right direction but it is still a little static. There is a good deal of white space . I know that you could go on with options forever and everyone is going to have their particular spin. I want to repeat that I think Design 2 has the look we need to strive for , but I also thinks it needs a little more work. Regarding the organization and content, it seemed to be incomplete.
51.	D	X			I recommend that on the second level of "students" the site contain a link to allow students to remotely view their nps email. To my knowledge, students currently must enter a separate site to login to their email accounts.
52.	F	X	X		I don't think you have yet adequately answered this question? Does the design reflect the image of NPS that we want to communicate? I think our website need not only reflect the proper image for prospective students but the right image for those who pay the bills ...our sponsors. The image right now is weak...we should emphasize the academic side but also our Navy side. We need to show that we contribute the goals and mission of the Navy. I realize this is hard to do with just a few images but I think we can do a better job. Also, get rid of the animated gifs...they are becoming

#	S	P	M	C	Comments
					out-dated on professional sites.
53.	S	X			The largest voluntary program on campus, (over 500 participants on 10 December, 00, for example) is the Command Religious Program. All reference to this NPS program has been omitted from the proposed websites. It needs to be placed clearly in the same section with housing, medical, etc. Catholic and Protestant programs exist and have had their own sites under the NPS general website. The Command Religious Program site also contains information on other faith groups (Muslim, Jewish, etc) and marriage-parent enrichment programs. Please include it.
54.	D	X			Need to include descriptions of (or links to) the admissions processes for the various services and POCs for more information within each service.
55.	D	X			Prospective research sponsors need their own link that gives them access to faculty e-mails for point of contact by academic department.
56.	F	X			<p>Here are my suggestions:</p> <p>(1) There are too many levels to go into departments and groups. Most people (students in particular) would like to go to a department or group as soon as possible. Suggest to create a first-level entry "Departments and Academic Groups". At the second level, the departments are academic groups are organized under different schools in an alphabetic order.</p> <p>(2) Curricula should be organized under each department or academic group.</p> <p>(3) About NPS, Search, and Disclaimers should be removed from the side bar and put in a separate area under the picture.</p> <p>(4) A new entry "IT Support" should be added under Library.</p> <p>(5) Admission should be put in the first level.</p> <p>(6) Centers should be put under Research.</p>
57.	F	X			Would like to see DRMI (Defense Resources Management Institute also included under Executive Education. So level one would be Exec Ed, level 2 would be the Center for Exec Ed and DRMI.
58.	S	X			Links to the services in attendance at NPS are not present. Currently, I believe they are located under the Dean of Students (an unlikely place and hard to get to). I think these service pages should be included with the links at level 2 under students. This will give

#	S	P	M	C	Comments
					services a chance to readily find information about their service.
59.	S	X		X	<p>1. This is a poorly written questionnaire. You should get some help with the wording of your questions. Instance: "...what we want to communicate?" I have no idea what you are trying to communicate.</p> <p>2. Neither of these proposals appear to have the information available on the current intranet webpage. Are these meant to replace this page or the www.nps.navy.mil page.</p> <p>3. If this is supposed to replace the current intranet page, it DOES NOT provide useful and easily accessible information to current students.</p> <p>4. There are a significant number of links on the 'current' page which do not appear to be in your hierarchy. In addition, there are links which might be of interest to incoming students and visitors which are missing (recreations, local weather, etc.)</p> <p>5. The NPS Foundation is a private organization, is providing a link to them appropriate?</p> <p>6. The library access should include BOSUN.</p> <p>7. This is a good start, but it needs some more work to be useful, and your survey needs to be tuned by a person reasonably familiar with writing questions to obtain useful feedback. I suggest using more of a scaled response in future surveys, to allow gradations rather than does/does not.</p>
60.	D	X			Is there any way for this website to be used as conduit for receiving thesis topic ideas from DoD commands? Thesis topics currently trickle in randomly to the various departments. Is there some means of allowing them to be organized via the net and distributed to the appropriate curric. areas automatically? Then, students could have access to them as well.
61.	D	X	X		Current Website is good. #1 emphasizes the community too much which makes people think we do not work hard out here. The #2 site is artsy but not very eye catching. I recommend you look at other graduate schools or universities and see how they make a first impression on potential research sponsors or students. Remember...any good looking website can be bad if not maintained and kept current like many of our levels presently are(i.e. Systems Mgt Student Gouge updated about once per week even though it states "Mandatory Reading Daily!")
62.	F	X			To clarify ratings above: I did not analyze the detailed levels asked

#	S	P	M	C	Comments
					about above. A single image (such as in design 2) is preferred over multiple images (such as in design 1). BUT, I strongly endorse having the mission statement as in design 1 part of the image. It says more about who we are than a single picture. Students should be the evaluators of the adequacy for them. From a faculty perspective, I don't see links to things like faculty council, "current issues," etc. Is the "intranet" link we're currently using to get, for example, information from the information network operators going to be handled differently? Without more info on the contents under "research," it's impossible to evaluate whether the site would be useful to potential research sponsors.
63.	D	X		X	It is a very nice attempt, however prospective students (especially international) would need more than just the academics to consider. Would you be interested to know about my NPS orientation page? Also, as long as the whole intranet follows the strict .mil standards it will never be much help. Would you consider separating it into two parts, a strict .mil and a more relaxed .edu?
64.	D		X	X	WWW Committee, I'm happy to see that "Research" moved higher on the list. One of the SGL speakers mentioned that he found it on the old page on the bottom, and that there was nothing behind it when he clicked on it.
65.	F	X			The levels are totally confusing. There seems to be no order.
66.	S	X			Since Design #2 doesn't have the next level attached it is hard to get a sense of what it will really look like. It is certainly cleaner looking but doesn't have the counter or the search option -- both are important and how will the next level be arranged??? Aren't some of the DRMI courses taught at an "executive" level? Seems like we should have some reference to them for consistency.
67.	F	X			I like the front page of design #2 better but I like everything else about design #1 better.
68.	D	X			The design 1 sidebar is functional but design 2 presents a calmer and less-cluttered image. Can't we use design 2 as a front page and incorporate the design 1 sidebar into the content pages?
69.	F	X			The organization doesn't make sense to me. If I look for my Institute, for example, I can find it under the "Academics" and then "School of International. . ." but how would anyone know to go there? And when you say "Executive Education" one would think all sorts of programs should be at the second level, because they are executive education. Instead, one finds only the CENTER for

#	S	P	M	C	Comments
					Executive Education. Misleading, not useful.
70.	F	X			You should be able to reach academic departments through the research button as well as the academics button. I don't think I can address how it will address needs until I see the actual content.
71.	F	X			The pictures on Design 1 are too small to figure them out. Design #2: Hermann hall does NOT represent the school (except in the minds of the Hermann Hall residents. The activities of the quadrangle and in the post-NPS workspaces of our graduates represent NPS. Much of the information under "Admissions" is not really admissions related. Keep trying!
72.	D	X	X	X	I like design #1 with the exception of the light blue background on sidebar menu. I think Navy blue is more professional. The image map in Design #2 looks great but you won't be able to keep a menu bar visible at lower levels unless you implement a frame or use tables like you did in design #1. I think we should remember that we are the "Naval" postgraduate school so Navy images would be appropriate. I tried to find student thesis abstracts and your layout lead me to the right spot with no hassle. However, the level 1 "Students" title is too vague. My first thought was click the "Students" option to find thesis abstracts since I'm a student and there is some logic that could lead people down that road. I would suggest changing the header to "Student Admin" or something more succinct than just "Students". Lastly, I would move the logo in the sidebar of design one closer to the top of the column. It looks like your research banner is in the way at the top of the page. Otherwise, looks great.
73.	S	X			I would like to see more how to's. Our website provides much needed information to the students. If you are a faculty member and need to know how to do something the right way, that is not addressed. The same thing for the staff, how do I find out who is in charge of travel manager. Also, would be nice for a link about what is happening not just MWR things, What's going on at the school. I know this is really not the responsibility of the committee but these are areas that need to be addressed.
74.	D	X			What is wrong with the "look" of the present version, WITH UPDATES of course? The "buttons" are a useable feature that have served valuable purpose. Consider maybe the new "second" version with some of the same format as the excising features.
75.	D	X	X	X	I think the website should have graphics of ships, planes, Marines, tanks, LAV's etc. No one cares about Hotel Del Monte. The school

#	S	P	M	C	Comments
					is not about that building. It is about US and international officers learning and building relationships to become better leaders.
76.	F	X			The new website should include much more information about housing, and not just gov't quarters. The single students at NPS are provided with zero support and information about living on the economy or the high cost of hotels (due to BOQ unavailability) while looking for housing. A greater effort should be placed in this area; possibly have a link where private land lords can place ads for apartments or have inputs from the various local papers and weekly magazines.
77.	F	X			It seems a little premature to ask if the new web-site will meet the needs of students/faculty/etc, as there really isn't any content or navigation available to really get a feel for it.
78.	S	X			While I understand that we are presenting a new face for prospective students, I feel that the site has left off important services websites. Was this done on purpose? (MWR, Safety, Environmental, PW, etc...)
79.	S	X		X	I like the ease of links of the original page but the professional looks of Design 1. Although NPS standards for a monitor would make you page easy to read the majority of our customers do not have that large a of view space at home or in the field. We need to consider all of our customers! I was on the NPS homepage long before I arrived and I have to tell you it was easy to get around. Be sure and field test as you go through the redesign. Perhaps ask people who view from home to complete a survey for you. Thank you for asking us for our recommendations.
80.	S	X	X		What about the design that UI did? http://unixpreview.universal-net.com/nps/ This seems like the most professional site.
81.	F	X	X	X	In my opinion, the website needs several things: First, we should have link to some of our major achievements with respect to our Alumni (e.g. Astronauts, Flags etc.) and Faculty/Student Research. Example: 2 of the 5 astronauts currently in orbit are NPS grads. This should be prominent at LEVEL 1 with links to their pictures/bio etc and NASA links. I also learned from PBS that DOS or something close to it was invented at NPS (by an ECE Prof) before Bill Gates Stories like this should be at least linked at LEVEL 1. Challenge Athena is another example. To make things easier for Prospective Students, why not have a Level 1 link that says "for prospective students"? Also, it would be nice to have for the prospective students' level 2 link another one that goes back to

#	S	P	M	C	Comments
					our achievements page (see para above). Current students mostly care about which courses are offered, how often and when, and most importantly thesis. Again a simple link that says for current students (maybe cross-linked w/ the prospective students' page) would help with cross-links to Faculty Research for Thesis options. Prospective Research sponsors care only about the quality of our research and the PR they can get out of it. So, having our Alumni (e.g. Flags), Faculty Achievements page, the total number of Research Dollars we spend all displayed prominently in Level 1 would direct them to find out the quality of research as well as link them up w/ Key Words on Faculty's Research. The pictures in Design 1 could also be linked (e.g. students' pictures to students' page, Hermann Hall to an "About NPS page", Monterey to the city page etc.). The idea of having Search as a prominent link at Level 1 in Design 1 is a GREAT IDEA!! Please keep this even if you go to Design 2.
82.	F	X	X		As far as the image we want to communicate, the small, fuzzy pictures on the "Design 1" home page don't do it. The picture of the building on the "Design 2" home page could be any university in Anytown, USA. I'd recommend one or two pictures that emphasize the fact that we are striving to be THE graduate school for the U.S. military . Something emphasizing technology in the lab/classroom and its use in the fleet/battlefield/etc. I think the levels are appropriate except that there should be a link to ADMISSIONS at LEVEL 1. Someone who stumbles across the NPS home page should be able to quickly ascertain whether they are eligible to enroll.
83.	D	X			For prospective research sponsors there should be more focus on research products than on the research organization.
84.	D	X			Design #1 is ok but not much better than the current website. Need to improve on the cover pictures, i.e. larger, more clear, more relevant.
85.	D	X			Under STUDENTS you need to have links to the different groups here at NPS i.e. Armed Forces (USN, USMC, USA, USCG), professional clubs (flying club, NPSSA, SWO Assoc...), academic clubs (IEEE, ...), others (NNOA...) These groups are of great interest to students coming to NPS as well as those of us already here. They also reflect the diversity and activity of the student body.
86.	F	X			Nice Job!!!

#	S	P	M	C	Comments
87.	D	X			For current students, it would be nice to have a link that addresses : - SGLs to come - Possible thesis currently available Thanks.
88.	F	X			Since we have to advertise courses to attract students within NPS, is there a place a faculty can use as a bulletin board to attract students to his/her course? It would include both "new courses", or "existing courses" or "courses redesigned" brought to the attention of the students, including sign up sheets for new courses.
89.	F	X	X	X	Everything so far looks corporate not Navy. We are a part of the navy and should not have a corporate look or feel.
90.	C	X			Feedback from a contractor (Universal Internet). Universal Internet principal is also an NPS ITM grad (1994) as well as heavily involved in the NPS Foundation. Universal Internet also created the Foundation website at www.npsfoundation.org. We are wondering why the design we were hired by Code 05 to create a few months ago was not a choice in this questionnaire? We also created a database driven, administrator updatable primary/secondary/tertiary navigation menuing system at no cost to the government for use on the site. We respectfully request that our design be included in an updated survey ASAP. Anything short of that is a waste of government resources since our design was paid for and it was well thought of by several NPS people involved. Yes, we would like to participate in the process, and my email address is brian@universal-net.com and my phone number is 831.622.5000. We would also like a response acknowledging our comments and recommendations.
91.	D	X	X		Shockwave elements and better graphics/high resolution pictures should be introduced to make it more "high impact" on the viewer. A site to be remembered....
92.	F		X		I thought both front page website designs were weak. While some pictures of the Monterey area are nice, the front page needs to be bit more bold, truly characterizing the type of work done at NPS. Furthermore, I think a different font should be considered. Both designs use simple, boring fonts. Try something that catches the eye a bit more.
93.	D	X			I think that a neutral viewer browsing the site would see a great deal of fragmentation in the sites once they got to level 3. Each school/department page differs greatly from the others. Given that this is one school, with a unified front (so to speak), it seems that more consistent page designs would be appropriate.

#	S	P	M	C	Comments
94.	S	X			We also have a large number of visitors to the school every year, so information for visitors would be useful, ie the number for the BOQ and info for protocol, or links to hotels and restaurants and other general Monterey info.
95.	F	X	X		I like the clean look of design #2, but I think the # 2 picture is a bit quaint. Maybe a photo or photo collage would be better. For design #1 the collage of pictures is too small to see much, except the wave. I don't like the sidebar. The obvious division (blue vs white, yellow line) between the sidebar "frame" and the main frame is too distinct. It looks much cleaner to not notice frames, even if they're there. I also find the yellow text shadows annoying, maybe if they were a little closer it would look nicer. The counter is really tacky! This must go or I will disavow any association with NPS. The mission statement is useful, because a lot of folks don't know what we do. But I don't really like it right up front, it's kind of a turn-off. I'd rather stick to graphics and simple links. How about a 1st level link to a mission statement, except that we link it with something like "What do we do?" I think the academic departments should be brought up to Level 3. Are they at Level 4 so they can keep their home pages? If so, it may be OK. I could not answer questions 9-12 because the answers depend on the content of the websites and I did not review these.
96.	S	X			Something pointing to courses or curriculum must be on website front page. Also a short mission statement should be on the front page. If you ever decide to redo the NPS mission statement here is my suggestion. Mission, to enhance NATO forces combat effectiveness and security through educational research.
97.	S	X			A statement at the top of the site map that explained a little about navigating the map would help prospective students and research sponsors. Could the levels be distinguished by color or font? Is it possible to keep the headings ("level_") as you scroll down? Putting "About NPS" at the top would help prospective students. Could the acronyms at the top right be written out?
98.	D	X		X	There needs to be some way to get to the page for each Code. Prospective students are sponsored by their codes and not by a major/school, so it is confusing for a new student to not have access to the Code pages as well as the Daily announcements for that code. Overall, I like the design of design 2 but add a mission statement to it like from design 1. The pictures on design 1 are way too small to be of much use. Thanks.

#	S	P	M	C	Comments
99.	F	X			Design 2 is clean and neat.
100.	S	X			Where is Public Works, Fire and Police Safety and Housing. How about links to conferences, conference room (online reservations?) Conference coordinator.
101.	S	X			I am a bona fide disabled veteran in the 30% or more category. In addition, I have veteran's preference for RIF purposes. I enjoy working here and enjoy my job. Due to recent exacerbations of my multiple sclerosis, my doctor proposed a "split" work week. The schedule would have me in the office (Comptroller Dept.) Mondays and Tuesdays with Wednesdays either telecommuting or taking work home, back to the office for Thursdays and Fridays. The "split" schedule is so I am able to recoup energies spent, as fatigue is one of the most debilitating aspects of MS. However, it was determined by an "Executive Summary" telecommuting would not be possible due to problems with "the Lines" and "the firewall". I am only trying to hold on to my position here at the school and deal with my disease. Another aspect of the telecommuting situation, in general, I do not understand is in the FedReport dated Dec.4, 2000, the Merit Services Protection Board (MSPB) encourages supervisor's to have their employees telecommute. Pardon the cliche', but it seems like the left hand does not know what the right hand is doing. Obviously, the MSPB is not aware of firewalls, etc. Thank you. Please feel free to contact me.
102.	D	X		X	Couple of comments/suggestions: 1. Thanks for asking for comments. 2. May I suggest moving admissions from level 2 to level 1. 3. For efficient links navigation, implement dynamic menus to allow easy "drilling down" to a desired page. Pop-up menus seem to be the internet norm now for sites with numerous links. Must keep in mind to ensure IE and Netscape compatibility back at least 1 s/w version... e.g. IE 4.0 Here is an example of a DOD site using dynamic menus: http://www.navyclub.org/index_frames.htm The software to build these dynamic menus is at: http://popup.jscentral.com/viewpage.html
103.	D	X			At least two kinds of links should be added to the homepage: links to all distance (web-based) courses taught from the NPS programs; links to defense and DoD main sites. Maybe even links to some appropriate sites related to the international NPS students, but surely link to International Office homepage.

#	S	P	M	C	Comments
104.	S	X			There are some errors within the contents of some of the pages. Such as: - 825 Intelligence OPINTEL (no longer exists) under National Security Affairs- We offer 2 Masters degrees: 1. Master of Arts in National Security Affairs 2. Master of Arts in International Security and Civil-Military Relations
105.	F	X			In design #2, recommend including a photo of Hermann hall rather than the painting. Photos confer "reality", which is a natural obstacle in web design. I am interested in participating in the www committee.
106.	D	X			Need to improve the quality of the photos in design #1.
107.	F	X		X	I liked the intro page of design #2 but did not like the little blue text used on subsequent pages. I liked the simplicity of design #1's subsequent pages, but did not like the intro page. The choice of pictures were especially poor. Although a definite improvement from the current web page.
108.	S	X			Shouldn't "About NPS" be at the top, with a link to the Superintendent's page? How are research projects going to be handled? Maybe links to the departmental pages would be appropriate (as long as they're kept current). But, then, we're already talking 3 layers deep. I like that page #2 does not have a counter. I think the flags on page #2 are a distraction. But, I'd rather have nothing than the pop-up menus like on the "intra" page.
109.	F		X		Marketing to prospective students and research should present a different image (not so complex) and specifically geared for that audience.
110.	F	X			Categories on levels 2 & 3, "NPS Phonebook", "Superintendent Bio", and "Provost Bio" might contain personal information which should NOT be made public. My "Disagree" choice on these categories would be switched to an "Agree" if it was clear that no personal information will be contained on these pages.
111.	D	X			This was only by first impressions. I would need to use these sites for like a month to determine if these sites really fit the needs of a student. Therefore, I'm sure whatever site that is chosen it will continually evolve! Both designs, especially Design 2, are definitely an improvement over our current internet site! Design 2 was easier to find "things" especially important for new students. I like the option of going to your email and how you can get to other

#	S	P	M	C	Comments
					services (transcripts) as well!
112.	F	X		X	While the overall look and feel of the websites are clear, some of the details in formatting, etc. could be improved. The photos on the welcome page for Design 1 are too small. The academics intro page on Design 2 is too cramped, etc. The Design 1 seems to be more in keeping with what I have seen for modern organizations and businesses.
113.	D	X		X	Design #2 is "cleaner" looking. Less reloading and clicking to get down to the pertinent info.
114.	F	X			I think Level 1 should include a category of "Support Services" which would include things like HRO, IT, Audio Visual Support, etc. These are the things that support the Mission of NPS.
115.	S	X			The reason I do not like Design 1 is large page that does not fit fully in the monitor. I have a 19in monitor so I figure most people at home would not have this size. - Faculty I like the p While I only quickly reviewed the different designs and the Site Map, I responded "neutral" to #11 as I did not see much in the way of available services to staff and faculty. For instance, no mention of Human Resources, Safety, Public Works, etc. I realize the new design is to project image but I would also think it important to offer information to our staff and faculty in an effort at improving communication.
116.	F	X			I think the current web page is fine ... this would be at least!!!! the 3rd time it has been changed. I get tired of trying to figure out where everything has moved to when pages are redesigned. The first design crashed my Netscape window once - and it is SLOWWWWW to load.
117.	S	X			It's missing links for the support departments and divisions under codes 21, 22, 23.
118.	S	X	X		With no sports programs or pretty co-eds running around, you need to sell prospective students on Monterey itself. please add links to local websites (golf, wineries, music, wharf, etc.), like http://www.monterey.com . This will help sell NPS to prospective students and keep current students informed as well.
119.	S	X			Add Faculty/Staff locator to Level 1 (often interested parties are looking for an individual) Move Library to Level 2 (internal service)

#	S	P	M	C	Comments
					<p>Move Executive Education to Level 2 (programs)</p> <p>Move NPS Course Catalog or Curricula to Level 1 (matter if interest to curious parties)</p> <p>Move Administration to Level 1 (less navigation for administrative business interested parties)</p>
120.	S	X			The catalog is VERY important to all that hit the site from outside. In design 1 it has prominence in level 2 under academics. I prefer design 2 though, but the catalog is buried under the registrar. It ought to move up above or below curricular programs.
121.	S	X	X		I think the present home page, with its dark blue & yellow colors, is more professional looking, very becoming for a Naval environment. It looks very formal and academic. I compare it a Naval Officer in uniform as opposed to the same officer in civilian attire.
122.	F	X			Why not to include pics of the faculty next to the name? I think this would be appreciated by new students.
123.	D	X			I do not see a location for difference Armed Force Branches at NPS. Maybe even one for difference Countries.
124.	S	X			Looks very nice.
125.	D	X	X	X	I really like both of the new designs for the front page. Both have their strengths. If depends on what your trying to do. The first design is a good "seller" or marketing tool. Having pictures from around the area build peoples interest (need to fix the pictures they are very blurry). It also helps sell the community. On the other hand the second design is a show of class. Its not overbearing, if you have already decided on the school and know about it, you can look at the community through the links. They are both definitely better than the existing page. If you would like any further feedback please get in touch with me. I would like to be a part of this process.
126.	S	X			You left out many links on category 3. I specifically noticed the pages linked from the Dean of Students page are missing.
127.	D	X	X		The only reason I like Design #2 better than Design #1, is because the photographs on Design #1 are poor quality. Maybe they are too small or too high contrast - I don't know, they just look bad, and don't convey a good impression. If the photos were clearer, I would choose Design #1 over #2.

#	S	P	M	C	Comments
128. O	X	X	X		Please remember what make the Monterey Peninsula and the NPS grounds what it is today. Trees, History and natural beauty. Keeping the look of the past "classy" appearance of the OLD DEL MONTE HOTEL is very important. DO NOT SELL US OUT by accepting new design ideas just because that's what the rest of the new world needs. What we have here is class and style, lets keep it special. We need to retain the look and names of everything that represents the "Old Historical style.
129. C	X				I'm not only a contractor, but also a spouse. When we found out we were coming here I found it extremely frustrating that housing was not listed as one of the Level 1 topics. I had to search the site to find housing. It is a top priority of every family who comes here and should be given the appropriate importance on the website. Please don't hide it under the "Students" category.
130. D	X				A link to MWR activities at NPS and POM should be included in a lower (3 or 4) level.
131. F	X				I think the current website and the new proposals address the needs of those currently stationed at NPS. It also addresses the needs of the incoming students. But I think that it lacks information for enlisted sailors who may be thinking about coming to NPS on PCS orders.
132. D	X				All of the pages for design #1 are wider than the screen when displayed at 800 x 600. This problem does not exist in design #2.
133. D	X				The image of Herrmann Hall on Design #2 is in keeping with the history and image of the school. It is a much more attractive home page.

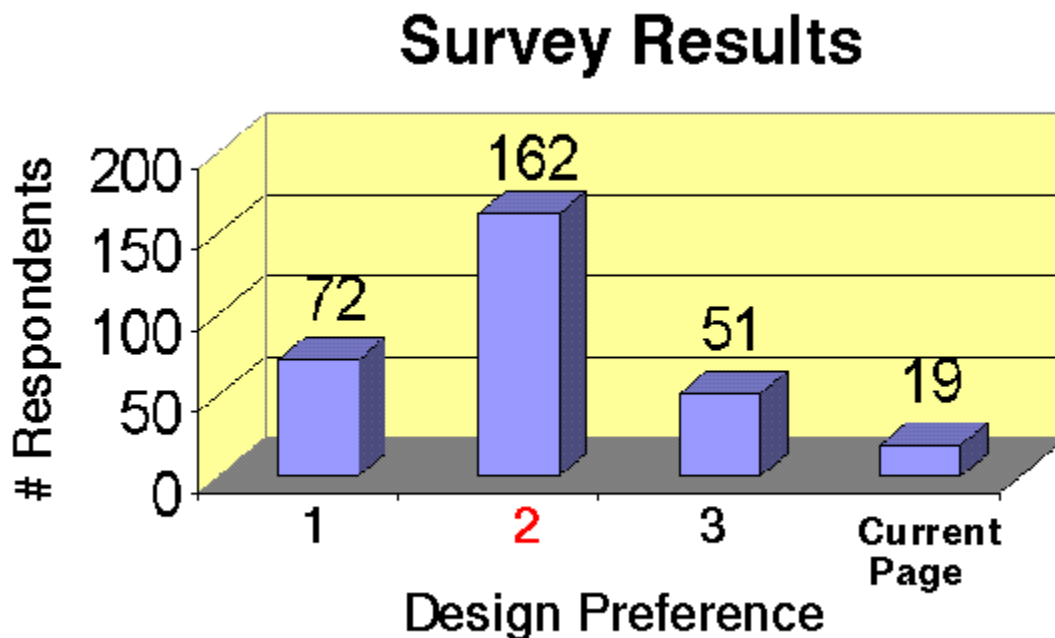
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APPENDIX D: SURVEY SUMMARY RESULTS

There were 331 Total Respondents comprised as follows:

Faculty:	118
Staff:	81
Students:	119
Contractors:	7
Other:	6
Total: 331	

131 Responses included comments. Design preferences chosen by the survey respondents were as follows:



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APPENDIX E: THREE DESIGN DOWNLOAD TIMES

Design 1 Download Times:

Object type	Number	Size (bytes)	Estimated download times (seconds)					
			14.4	28.8	33.6	56K	128K	T1
HTML	1	8600	6.27	3.44	2.87	2.46	1.07	0.43
Images	6	60111	43.84	24.04	20.04	17.17	7.51	3.01
Java applets	1	9328	6.80	3.73	3.11	2.67	1.17	0.47
Total	8	78039	56.92	31.22	26.01	22.30	9.75	3.90

Design 2 Download Times:

Object type	Number	Size (bytes)	Estimated download times (seconds)					
			14.4	28.8	33.6	56K	128K	T1
HTML	1	17360	12.66	6.94	5.79	4.96	2.17	0.87
Images	18	38278	27.92	15.31	12.76	10.94	4.78	1.91
Java applets	33	20948	15.28	8.38	6.98	5.99	2.62	1.05
Total	52	55638	40.58	22.26	18.55	15.90	6.95	2.78

Design 3 Download Time:

Object type	Number	Size (bytes)	Estimated download times (seconds)					
			14.4	28.8	33.6	56K	128K	T1
HTML	1	8997	6.56	3.60	3.00	2.57	1.12	0.45
Images	24	103416	75.43	41.37	34.47	29.55	12.93	5.17
Java applets	2	31098	22.68	12.44	10.37	8.89	3.89	1.55
Total	27	112413	81.99	44.97	37.47	32.12	14.05	5.62

Download times estimated by Dr. Watson at <http://watson.addy.com/>
(last checked October 2003)

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APPENDIX F: BIOGRAPHY

Warren Yu

Lieutenant Commander, United States Navy
Director, The Innovation Studio
Center for Executive Education

LCDR Yu served on the Seventh Fleet flagship based in Yokosuka, Japan, an Aegis cruiser in Mayport, FL., and an amphibious assault ship in Norfolk, VA. A graduate of the Naval Academy, the Naval War College and the Naval Postgraduate School, he holds Master's degrees in Finance and Information Technology. He has designed and delivered courses on leadership, counter-cultural organizational development, talent & change management, and disruptive technology for over 250 Flag Officers and Senior Executive Service members from all four military branches and several federal agencies.

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